

Amendments to the Claims

1-29. (Cancelled)

30. (Previously presented) A laser amplifying system as defined in claim 57, wherein the heat resistance of the active adhesive layer area is less than $5 \text{ K} \times \text{mm}^2/\text{W}$.
31. (Previously presented) A laser amplifying system as defined in claim 57, wherein the active adhesive layer area is at least that area of the adhesive layer bordering on a volume area of a radiation field of the solid-state body having a pumping power density of at least approximately 80% of the maximum value present in it.
32. (Previously presented) A laser amplifying system as defined in claim 57, wherein the active adhesive layer area is at least that area of the adhesive layer bordering on the volume area of the solid-state body penetrated by a pumping light radiation field from the radiation source.
33. (Previously presented) A laser amplifying system as defined in claim 57, wherein the active adhesive layer area is at least that area of the adhesive layer bordering on a volume area of the solid-state body penetrated by at least two intersecting pumping light

radiation fields.

34. (Previously presented) A laser amplifying system as defined in claim 57, wherein the adhesive layer has a tensile strength of more than 1 N/mm².
35. (Previously presented) A laser amplifying system as defined in claim 34, wherein the adhesive layer has a tensile strength of more than 5 N/mm².
36. (Previously presented) A laser amplifying system as defined in claim 57, wherein the adhesive layer has a shearing strength of more than 5 N/mm².
37. (Previously presented) A laser amplifying system as defined in claim 36, wherein the adhesive layer has a shearing strength of more than 25 N/mm².
38. (Previously presented) A laser amplifying system as defined in claim 57, wherein the adhesive layer is essentially thermally invariant in shape in the solid, cross-linked state.
39. (Previously presented) A laser amplifying system as defined in claim 57, wherein the adhesive is a two-component adhesive.
40. (Previously presented) A laser amplifying system as defined in claim 57, wherein the adhesive passes from the liquid state into the solid, cross-linked state

without any transfer of substances.

41. (Previously presented) A laser amplifying system as defined in claim 57, wherein the adhesive is adapted to harden when exposed to radiation.
42. (Previously presented) A laser amplifying system as defined in claim 41, wherein the adhesive is hardened by way of radiation with light.
43. (Previously presented) A laser amplifying system as defined in claim 42, wherein the adhesive is hardened by way of radiation with UV light.
44. (Previously presented) A laser amplifying system as defined in claim 57, wherein the adhesive has a viscosity of less than 1000 mPa x s in the non-cross-linked state.
45. (Previously presented) A laser amplifying system as defined in claim 57, wherein the adhesive layer is free from filler material.
46. (Previously presented) A laser amplifying system as defined in claim 57, wherein the adhesive layer has a filler material.
47. (Previously presented) A laser amplifying system as defined in claim 46, wherein the filler material has

nanoparticles.

48. (Previously presented) A laser amplifying system as defined in claim 46, wherein the filler material has filler bodies with a size in the micrometer range.
49. (Previously presented) A laser amplifying system as defined in claim 48, wherein the filler material has filler bodies consisting of one or more of the substances boron nitride, diamond, silver, copper and/or gold.
50. (Previously presented) A laser amplifying system as defined in claim 57, wherein the adhesive layer area bordering on the active volume area has a thickness of less than 5 μm .
51. (Previously presented) A laser amplifying system as defined in claim 50, wherein a portion of the adhesive layer bordering on an active volume area has a thickness of less than 2 μm .
52. (Previously presented) A laser amplifying system as defined in claim 46, wherein a portion of the adhesive layer bordering on an active volume area has a thickness of less than 50 μm .
53. (Previously presented) A laser amplifying system as defined in claim 57, wherein the adhesive layer is

optically transparent.

54. (Previously presented) A laser amplifying system as defined in claim 57, wherein the adhesive layer has an essentially constant thickness.
55. (Previously presented) A laser amplifying system as defined in claim 57, wherein the adhesive layer has an increasing thickness in a radial direction in relation to a center of an active volume area starting from a central adhesive layer area bordering on said center.
56. (Previously presented) A laser amplifying system as defined in claim 57, wherein the course of the thickness of the adhesive layer is essentially radially symmetric to a center of an active volume area.
57. (Currently Amended) A laser amplifying system comprising:
- a plate-like solid-state ~~body comprising host crystal doped with~~ a laser active ~~medium component~~, said solid state ~~body~~ host crystal having two oppositely located flat sides;
 - a radiation source for optically pumping said laser active ~~medium component~~ to generate an amplified radiation field for output from a first one of said flat sides of said solid-state ~~body~~ host crystal;
 - a cooling member with a support surface for said solid-state ~~body~~ host crystal;

a ~~first~~ second one of said flat sides of said solid-state ~~body~~ host crystal being mechanically and thermally coupled to said support surface via an adhesive layer that comprises a cross-linked adhesive material;

said adhesive material being of a type that is essentially invariant in volume when changing from a liquid state into a solid, cross-linked state; and

the adhesive layer having an active adhesive layer area with a heat resistance of less than $10 \text{ K} \times \text{mm}^2/\text{W}$.